

EXHIBIT A

Case No. TFJ96-013

INVENTION RECORD

Layered Ball with Thin Thermoset Surface

1. Inventors:

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2. Nature of the Invention:

- (a) **Field of the Invention**
(Give the broad field and the particular limited field)

Golf balls, particularly golf balls with a thin layered "double cover" construction

- (b) **Object of the Invention**
(State what it is that the invention is intended to provide)

Research suggests that balls with thin surface layers of soft material covering a high flex modulus inner layer exhibit comparatively low spin rates with drivers / long irons and higher spin rates with short irons (relative to a single cover layer golf ball).. Further, a high flex modulus inner layer increases velocity.

This invention is intended to provide this desired performance. By "veneering" the surface of a conventional golf ball construction with a soft material, these results can be achieved.

With low club head speed / high loft shots, a ball's surface hardness has a greater influence on spin rate than overall construction. With high club head speed / low lofted shots, the opposite is usually true. Therefore, by creating a low-spin golf ball construction and veneering it with a *thin* layer of soft surface material, a ball is created that provides this "progressive performance" from driver to wedge.

(c) Novel Features of the Invention

(State the differences over the prior art to the extent that they are known to the inventor(s))

Conventional ball molding processes (e.g. compression molding, injection molding) are not capable of easily applying such thin layers over a solid generally spherical surface. The largest solid cores used in injection molding are currently 1.580", wound cores ~1.610" are known to be compression molded, but conventional compression molding either damages cores (hard covers) or results in excessive parting line defects (soft covers) when solid cores > 1.580" are used.

Although several layered construction golf balls are known to the inventors (e.g. Bridgestone Altus Newing, Reygrande 2x2, Spalding Giga, Dunlop Metal Mix, Kasco, Wilson Ultra Tour Balata, etc.), no other layered ball construction currently makes use of a castable material to apply a thin "veneer-like" outer surface layer (this cover layer may be as thin as 0.005").

By utilizing a castable reactive material, which is applied in fluid form, thinner surface layers may be obtained.

(d) Advantages of the Invention

(State how and to what extent the invention overcomes prior difficulties)

By utilizing a reactive fluid to form the outer surface of the ball, thinner surface layers can be obtained with current molding technology. By using thin surface layers, golf balls can be produced combine the most desirable properties of both hard and soft covered balls.

3. Expected Utility of the Invention

(State how, where and to what extent the invention will be used)

These types of balls will be used by all golfers, regardless of ability level, to improve their golf game.

4. Conception

(State the date on which the invention was first thought of and identify the first written description of the invention)

"Veneer" concept
Elastomer Veneer
First balls made

Product Development meeting)

5. Reduction to Practice

(Give dates and locations of all written records describing or relating to the practice of the invention, from the time of conception up to and including the present)

CA645 High Spin Project X
CA648 Layered Wound Ball
CA649 Layered Wound Ball

6. Best Mode

(Identify any record(s) describing the most preferred way of carrying out the invention known or contemplated by the inventor(s). If no such records exist, a description of the best mode should be included in Part 7, below)

- o Wound or solid core is manufactured (by conventional process techniques)
- o Inner cover is applied on top of core (either by compression or injection molding)
- o Thin veneer is applied to create the balls surface by casting a reactive liquid material around the inner cover

The result is a ball with a thin veneer of a material covering an inner cover. In the preferred embodiment, the inner cover is a high flex modulus, resilient material and the veneer is a soft but abrasion resistant material.

7. Detailed Description of Invention

(If drawings are necessary, submit copy and refer to drawings in the description by numbers. If space provided below is insufficient, attach additional sheet(s).)

See Illustration example 1 (attached)

8. Expected Scope of the Invention

(State how and to what extent possible equivalents, in materials or steps, have been investigated or considered.)

Compression molding solid materials over solid cores and/or cores of any construction with inner covers whose OD is greater than 1.580" has resulted in damaged cores or a high frequency of cover seam integrity failure.

Injection molding thin layers of <0.050" is also not practical

9. Prior Art

(Identify all patents and printed publications [e.g., journal articles, treatises and dissertations] of which the inventors are aware.)

none known which use a thin surface veneer of castable material.

10. Signature of Inventor(s)

Date _____
Witness James Sulmer
Witness _____

(b) Date _____
Witness James Sulmer
Witness _____

(c) Date _____
Witness James Sulmer
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